

CLAIMS

1. A method of reinforcing or reinstating an existing structure, comprising the  
5 steps of:  
attaching a reinforcing metal layer to said metal panel in spaced apart relation  
to thereby form at least one cavity between surfaces of said metal panel and said  
reinforcing metal layer;  
injecting an intermediate layer comprised of an uncured plastics or polymer  
10 material into said at least one cavity; and  
curing said plastics or polymer material so that it adheres to said surfaces of  
said metal panel and said reinforcing metal layer so as to transfer shear forces  
therebetween; wherein  
said existing metal structure comprises a generally tubular part and said  
15 reinforcing metal layer is attached inside tubular part.
2. A method according to claim 1 wherein said existing structure is an off-shore  
structure.
- 20 3. A method according to claim 1 or 2 wherein said tubular part is a submerged  
or partly submerged part.
4. A method according to claim 2 or 3 wherein said tubular part is a support leg  
or bracing member of an off-shore structure.
- 25 5. A method according to any one of the preceding claims wherein said  
reinforcing layer comprises a series of plates or shaped parts that are welded together  
*in situ*.
- 30 6. A method according to claim 5 wherein said reinforcing layer comprises  
complete rings

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7. A method according to any one of the preceding claims wherein said reinforcing layer also covers end walls of the tubular part as well as side walls.
8. A method according to any one of the preceding claims wherein said  
5 reinforcing layer is made of steel, stainless steel or aluminium.
9. A method according to any one of the preceding claims wherein said reinforcing layer has a thickness in the range of 3 to 50mm.
- 10 10. A method according to any one of the preceding claims wherein said plastics or polymer material comprises a compact elastomer.